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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/506,453

06/07/2005

Masakatsu Endo

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25920

7590

12/10/2009

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EXAMINER

LE, TUAN H

ART UNIT

PAPER NUMBER

2622

MAIL DATE

DELIVERY MODE

12/10/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/506,453

Applicant(s)

ENDO ET AL.

Examiner

TUAN H. LE

Art Unit

2622

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 36, 38, 39 and 41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 36, 38, 39 and 41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-06)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/20/09 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 36, 38-39, and 41 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 36, 38, 39, 41 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Specifically, claims 36 and 39 include the limitation of "wherein when the digital camera is powered on, the digital camera is connected to the usb interface in the first

mode and when the digital camera is powered off, the digital camera is connected to the usb interface in the second mode", which is not supported by applicant's specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 36, 38, 39, 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura (US 6,806,978 to Tamura et al) in view of Hannah (US 5,784,581).

Regarding **claim 36**, Tamura discloses a digital camera (110), connected to a USB interface (116) in a connection mode (Tamura, fig. 8), the digital camera comprising:

a controller (camera cpu 120), operable to change the connection mode in accordance with a condition of the digital camera (Tamura, fig. 8, column 31 lines 17 and 63, wherein camera 110 can change connection mode between a printer or a personal computer),

wherein the connection mode includes:

a first mode (camera connected to the printer) in which the digital camera is in communication with a printer with an interrupt channel (Tamura, Fig. 8, column 31 lines

12-15, wherein USB connection is transmitted by using interrupt signal. Also, the camera functions as a slave device);

wherein the condition of the digital camera includes:

state of the digital camera in which the digital camera is powered on (Tamura, column 31 lines 4-14, wherein the camera is powered on);

wherein when the digital camera is powered on, the digital camera is connected to the usb interface in the first mode (Tamura, column 31 lines 4-14, wherein the camera is connected to the usb interface to communicate with an external printer).

However, Tamura does not disclose

a second mode in which the digital camera is in communication with a computer without the interrupt channel.

On the other hand, Hannah discloses

a second mode (camera connected to a personal computer which is embedded with an USB host controller) in which the digital camera is in communication with a computer without the interrupt channel (Hannah, Fig. 3, Fig. 5, column 4 lines 1-10, wherein the camera is automatically identified by the usb host controller. Also, the camera functions as slave device).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement the second mode as described by Hannah into the printing system as described by Tamura so that the digital camera is in communication with a computer without the interrupt channel because such

implementation results in higher image processing speed for image data captured by the camera.

Tamura and Hannah do not disclose

a state of the digital camera in which the digital camera is powered off;

when the digital camera is powered off, the digital camera is connected to the usb interface in the second mode.

However, it is obvious to a person in the art at the time the invention was made to modify Tamura such that Tamura and Hannah implement

a state of the digital camera in which the digital camera is powered off (Tamura, column 9 lines 59-65, wherein power supply of a printer is conducted to an electronic camera, thus the digital camera can be powered off);

when the digital camera is powered off, the digital camera is connected to the usb interface in the second mode (Tamura, column 9 lines 59-65, column 31 lines 4-14 and lines 61-67, wherein an electronic camera is connected to an usb interface to communicate with an external personal computer). Such modification permits efficient use of system power in which a larger power source is shared by the electronic camera.

Regarding **claim 38**, Tamura and Hannah disclose the aforementioned limitations of the parent claim. Additionally, Tamura discloses

when a communication connection between the digital camera and the printer is established, the digital camera sends a device descriptor including information on the interrupt channel to the printer, and then the printer sends a response to the device

descriptor to the digital camera (Tamura, Fig. 8, column 31 lines 23-46, wherein upon receiving "device descriptor", the printer sends "configuration descriptor" to the camera).

Regarding **claim 39**, Tamura discloses a system comprising:

a computer (Tamura, column 31 line 61);

a printer (Tamura, fig. 8); and

a digital camera (110), connected to a USB interface (116) in a connection mode (Tamura, fig. 8), and comprising:

a controller (camera cpu 120), operable to change the connection mode in accordance with a condition of the digital camera (Tamura, fig. 8, column 31 lines 17 and 63, wherein camera 110 can change connection mode between a printer or a personal computer),

wherein the connection mode includes:

a first mode (camera connected to the printer) in which the digital camera is in communication with the printer with an interrupt channel (Tamura, Fig. 8, column 31 lines 12-15, wherein USB connection is transmitted by using interrupt signal. Also, the camera functions as a slave device);

wherein the condition of the digital camera includes:

state of the digital camera in which the digital camera is powered on (Tamura, column 31 lines 4-14, wherein the camera is powered on);

wherein when the digital camera is powered on, the digital camera is connected to the usb interface in the first mode (Tamura, column 31 lines 4-14, wherein the camera is connected to the usb interface to communicate with an external printer).

However, Tamura does not disclose
a second mode in which the digital camera is in communication with the computer without the interrupt channel.

On the other hand, Hannah discloses
a second mode (camera connected to a personal computer which is embedded with an USB host controller) in which the digital camera is in communication with the computer without the interrupt channel (Hannah, Fig. 3, Fig. 5, column 4 lines 1-10, wherein the camera is automatically identified by the usb host controller. Also, the camera functions as slave device).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement the second mode as described by Hannah into the printing system as described by Tamura so that the digital camera is in communication with the computer without the interrupt channel because such implementation results in higher image processing speed for image data captured by the camera.

Tamura and Hannah do not disclose
a state of the digital camera in which the digital camera is powered off;
when the digital camera is powered off, the digital camera is connected to the usb interface in the second mode.

However, it is obvious to a person in the art at the time the invention was made to modify Tamura such that Tamura and Hannah implement

a state of the digital camera in which the digital camera is powered off (Tamura, column 9 lines 59-65, wherein power supply of a printer is conducted to an electronic camera, thus the digital camera can be powered off);

when the digital camera is powered off, the digital camera is connected to the usb interface in the second mode (Tamura, column 9 lines 59-65, column 31 lines 4-14 and lines 61-67, wherein an electronic camera is connected to an usb interface to communicate with an external personal computer). Such modification permits efficient use of system power in which a larger power source is shared by the electronic camera.

Regarding **claim 41**, Tamura and Hannah disclose the aforementioned limitations of the parent claim. Additionally, Tamura discloses

when a communication connection between the digital camera and the printer is established, the digital camera sends a device descriptor including information on the interrupt channel to the printer, and then the printer sends a response to the device descriptor to the digital camera (Tamura, Fig. 8, column 31 lines 23-46, wherein upon receiving "device descriptor", the printer sends "configuration descriptor" to the camera).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUAN H. LE whose telephone number is (571)270-1130. The examiner can normally be reached on M-Th 7:30-5:00 F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tuan H Le/
Examiner, Art Unit 2622

/Jason Chan/
Supervisory Patent Examiner, Art Unit 2622